INTEGRATED MODULE OF BIPOLAR PLATE FOR FUEL CELL STACK

ABSTRACT OF THE DISCLOSURE

An integrated bipolar plate module for a fuel cell stack includes a cathode fluid flow plate, an anode fluid flow plate and a coolant fluid flow plate which is mounted and sandwiched between the cathode fluid flow plate and the anode fluid flow plate. The cathode fluid flow plate is formed with a plurality of channels for conveying a cathode gas, the anode fluid flow plate is formed with a plurality of channels for conveying an anode gas, and the coolant fluid flow plate is formed with a plurality of channels for conveying a coolant between the cathode fluid flow plate and the anode fluid flow plate. In assembly, every two adjacent cell units of the fuel cell stack are separated by a bipolar plate module, so that the cathode gas is conveyed to an adjacent cathode gas diffusion layer through the channels of the cathode fluid flow plate and the anode gas is conveyed to an adjacent anode gas diffusion layer through the channels of the anode fluid flow plate respectively.